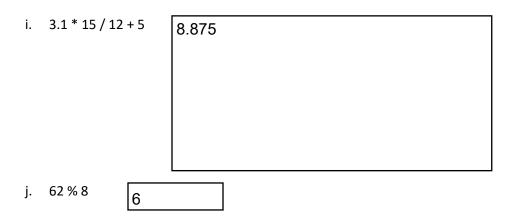
## Homework 3: Arithmetic Operators

CS 132	23 Fall	2023		
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Studen	t ID (usı	ually 112-	-xxx-xxxx or 113-xxx-xxxx): 113-650-204	
1.	to the there i	right. Pay s a decim	oint each) Perform each of the calculations below, and put the re y careful attention to the difference between int and double (wh hal point) and String and char (whether there are single or double ot be performed or does not make sense, say so.	ether or not
	e that y	•	rour work is to write a simple program that prints out each expre late them manually before you do this, since that will be required	
	a.	4 + 7	11	
	b.	5 – 6.41	<sup>12</sup> -1.412	
	C.	5 + 12 /	77 6	
	d.	16 / 3.0	9.3333333333333	
	e.	11/2+	8.2	
	f.	"3" + "9	98" 398	
	g.	(int) 9.9	942 9	
	h.	3.1 + 15	5 / 12 * 5 8.1	



2. (10 points; 2 points each) Assuming that the declarations below were made before each part, find the value of result for each expression below. If the expression is not legal in Java, say so. Pay attention to the difference between int and double. Make sure the assignment statement is legal. Show your work in the box to obtain partial credit. Decimals should be shown to three digits.

```
int dog = 5;
double canine = 21.5;
int cat = 41;
double feline = 2.15;
```

a. double result = dog + cat \* canine;

```
double result = 5 + 41 * 21.5;
double result = 5 + 881.5;
result = 886.5
```

b. double result = (int) canine / dog;

```
double result = (int) 21.5 / 5;
double result = (int) 4.3
double result = 4
```

c. double result = cat / canine \* feline;

```
double result = 41 / 21.5 * 2.15;
double result = 1.9069767441860466 * 2.15;
result = 4.1
```

d. int result = dog + cat + feline / canine;

The expression is not legal in Java because the values obtained from the caluclations is a double, which can not be stored in an integer variable.

e. double result = cat \* feline / dog \* canine;